GRY-119US

Appln. No.: 10/781,610

Amendment Dated November 14, 2005 Reply to Office Action of June 13, 2005

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1. (Previously Presented) Electromechanical valve control actuator for internal combustion engines, comprising an electromagnet with a magnet and with a mobile magnetic plate moving into the vicinity of the electromagnet, the magnet being located on a surface of the electromagnet opposite the plate, wherein the electromagnet comprises a E-shaped magnetic circuit, and the magnet is located at the end of a branch of the E-shaped circuit.
- 2. (Previously Presented) Actuator in accordance with claim 1, further comprising a rod that is an integral part of the plate, the rod being located outside the E-shaped circuit.
- 3. (Currently Amended) Electromechanical valve control actuator for internal combustion engines, comprising an electromagnet with a magnet and with a mobile magnetic plate moving into the vicinity of the electromagnet, the magnet being located on a surface of the electromagnet opposite the plate, wherein the electromagnet comprises a E-shaped magnetic circuit, and the magnet is located at the end of a branch of the E-shaped circuitActuator in accordance with claim 1 or 2, wherein a plurality of branches of the E-shaped magnetic circuit are equipped with a respective plurality of magnets.
- 4. (Previously Presented) Actuator in accordance with claim 3, wherein at least one of the magnets has a cross section larger than a cross section of the branch on which the at least one magnet is located.
- 5. (Currently Amended) <u>Electromechanical valve control actuator for internal combustion engines, comprising an electromagnet with a magnet and with a mobile magnetic plate moving into the vicinity of the electromagnet, the magnet being located on a surface of the electromagnet opposite the plate, wherein the electromagnet comprises a E-shaped magnetic circuit, and the magnet is located at the end of a branch of the E-shaped circuitActuator in accordance with claim 1 or 2, wherein the plate has a cross section that is smaller than a cross section of the end branches of the E-shaped-support circuit.</u>

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- 6. (Currently Amended) Actuator in accordance with claim 1 or 2, wherein the cross section of an end branch of the support-circuit is smaller than half the cross section of a central branch of the circuit.
- 7. (Previously Presented) Actuator in accordance with claim 1 or 2, wherein a cross section of a junction between an end branch of the E-shaped circuit and a central branch of the E-shaped circuit is smaller than half the cross section of the central branch of the circuit.
- 8. (Currently Amended) Internal combustion engine comprising an electromechanical valve control actuator equipped with an electromagnet with a magnet and with a mobile magnetic plate coming into the vicinity of the electromagnet, wherein the actuator is in accordance with claim 1 or 2.
- 9. (New) Actuator in accordance with claim 3, further comprising a rod that is an integral part of the plate, the rod being located outside the E-shaped circuit.
- 10. (New) Actuator in accordance with claim 5, further comprising a rod that is an integral part of the plate, the rod being located outside the E-shaped circuit.
- 11. (New) Electromechanical valve control actuator for internal combustion engines, comprising an electromagnet with a magnet and with a mobile magnetic plate moving into the vicinity of the electromagnet, the magnet being located on a surface of the electromagnet opposite the plate, wherein the electromagnet comprises a E-shaped magnetic circuit, and the magnet is located at the end of a branch of the E-shaped circuit, and wherein a magnetic circuit formed by a central branch, an end branch of the E-shaped magnetic circuit, and a junction between this central branch and this end branch is open when the electromagnet does not generate a magnetic field.